

CLAIMS

1. Inherently rigid instrument holder assembly, serving as a structural or styling element, which is formed from at least two molded parts, using fiber-reinforced plastic, and set up for attachment to support elements, such as the A pillars of a motor vehicle, characterized in that the molded parts are essentially formed of organic sheet material, which is particularly deformed by means of deep-drawing, to form an upper shell (1) and a lower shell (3), forming at least one reinforcement profile (6, 7) that extends in the longitudinal direction of the molded part, i.e. between the support elements (4), in each instance, which profile has at least one vertical ridge (31) that runs essentially vertically, and at least one crosswise shank (31a) that extends essentially perpendicular to it, in each instance, and that at least one of the shells is provided with at least one reinforcement rib (32) of plastic, particularly fiber-reinforced plastic.
2. Assembly as recited in claim 1, characterized in that the organic sheet material consists of a thermoplastic reinforced with a fiber woven fabric (12).
3. Assembly as recited in claim 1 or 2, characterized in that the reinforcement rib (32) is formed from the same thermoplastic as the organic sheet material.

4. Assembly as recited in one of the preceding claims, characterized in that the upper shell (1) and the lower shell (3) are connected with one another at least by way of vertical ridges (31).
5. Assembly as recited in claim 4, characterized in that the upper shell (1) is bonded or melted to the lower shell (3).
6. Assembly as recited in claim 5, characterized in that the bonding of the upper shell (1) to the lower shell (3) took place by way of friction bonding.
7. Assembly as recited in one of the preceding claims, characterized in that the vertical ridge (31) serves for the attachment of tunnel supports (2).
8. Assembly as recited in one of the preceding claims, characterized in that attachment organs (20) and/or guide elements (35) made of plastic are molded onto the upper shell (1) and/or the lower shell (3), using the injection molding method or transfer molding method.
9. Assembly as recited in one of the preceding claims, characterized in that reinforcement ribs (32, 33) are configured as deformation elements, which deform when forces occur and then also permit deformation of the corresponding shell part.
10. Assembly as recited in one of the preceding claims, characterized in that the upper shell (1) is provided

with scoops (13) and/or depressions (14, 15, 16) for forming storage spaces or tray spaces and/or for accommodating instrument panel components, airbag modules, loudspeakers, or similar instrument panel parts.

11. Assembly as recited in one of the preceding claims, characterized in that the upper shell edge that faces the passengers has ridge-shaped cut-outs, supported with injection-molded ribs, in the organic sheet material, to accommodate decorative strips or storage compartments that can be opened.
12. Assembly as recited in one of the preceding claims, characterized in that the upper shell (1) has depressions (16) to accommodate an airbag module both on the driver's side and the front passenger's side.
13. Assembly as recited in one of the preceding claims, characterized in that a scoop (13) is bonded onto the upper shell (1), on the driver's side.
14. Assembly as recited in one of the preceding claims, characterized in that the upper shell (1) follows the depression formation at the installation location of the airbag, and is provided with a planned tear-open seam (58) of the integrated airbag lid.
15. Assembly as recited in claim 14, characterized in that the planned tear-open seam (58) is formed by a pre-finished organic sheet material region.

16. Assembly as recited in claim 14, characterized in that the planned tear-open seam (58) is formed by a pre-cut part (tailored blank) (12a, 12b) in which at least approximately 90% of the reinforcement fibers or reinforcement filaments of the woven fabric run in the longitudinal direction of the vehicle, in other words crosswise to the longitudinal direction of the molded part, while the region of the organic sheet material around the tailored blank (12a, 12b) has at least one woven fabric layer having approximately the same number of warp and weft threads.
17. Assembly as recited in one of the preceding claims, characterized in that the upper shell (1) has planned tear-open locations (58) and/or regions that are deformable under pressure, in order to absorb the impact of body parts of passengers.
18. Assembly as recited in one of claims 14 to 17, characterized in that organic sheet material regions of the upper shell (1) are configured as woven fabric hinges (57) that permit pivoting or bending of the adjacent region in case of an impact.
19. Assembly as recited in one of the preceding claims, characterized in that the top (1a) of at least the upper shell (1), facing the passengers, is provided with a covering that has a plastic foam material at least in certain regions.